

Notice of Allowability

Application No.

10/782,730

Examiner

Faye Boosalis

Applicant(s)

WELSH ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5 July 2006.
2. ☒ The allowed claim(s) is/are 1, 3-16, 24-28, 30-35 and 37-41.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S COMMENT AND STATEMENT OF REASONS FOR ALLOWANCE

Comment on Submissions

1. This Office Action is responsive to submissions of 5 July 2006.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney Scott Harris on 21 September 2006.

Claim 13 has been amended as follows:

- 13. A method as in claim [2] 1, wherein said [obtaining] storing a signal comprises storing the signal in a buffer along with an associated signal that represents whether the signal is complete.

Allowable Subject Matter

3. Claims 1 and 3-16, 24-28, 30-35 and 37-41 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Regarding claims 1 and 26, the prior art does not disclose or fairly suggest a system or method, comprising storing a signal, indicative of a detection over a specified length of time by an electromagnetic detector, to determine a multiplicity of events within the signal and rejecting the signal if the number of events is outside a specified threshold.

The examiner notes, that while it is known in the art a system using attenuation correction and as part of the correction, the system ensures that multiple different receptors receive a signal prior to producing an output (see for example Bertelsen et al – US 5,608,221 A – col. 1, line 49) and when an event is detected, detector pair (80) and (80') (see for example Bertelsen et al – US 5,608,221 A – col. 7, line 60), a coincidence timing circuit (1050) produce an output. The system also includes trigger signals to indicate when a signal is over the threshold voltage (see for example Bertelsen et al – US 5,608,221 A – col. 11, line 42), however the prior art does not fairly disclose a method storing a signal that is over a specified length of time and reviewing that signal for a number of events within the signal of the specified length of time.

Regarding claims 24 and 25, the prior art does not disclose or fairly suggest a method, comprising: processing to compare a signal to a criterion that represents vibrational energy or a cosmic ray and changing the value of the second signal to represent an invalid signal when the comparing indicates that the signal represents vibrational energy or a cosmic ray.

The examiner notes, that while it is known in the art a method comprising: obtaining a first signal from an electromagnetic detector, indicative of a detection by the electromagnetic detector (see for example Berlad et al – US 6,388,258 B1 -- col. 2, lines 20-34); associating a second signal with the first signal, the second signal having a first value which indicates that the first signal is valid (see for example Berlad et al – US 6,388,258 B1 -- col. 11, lines 34-42); processing the value of the first signal, to determine whether the first signal represents a desired event being monitored (see for

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example Berlad et al – US 6,388,258 B1 -- col. 11, lines 43-50); and changing the second signal to a second value when the processing indicates that the electromagnetic detector signal represents an event other than a desired observed event (see for example Berlad et al – US 6,388,258 B1 -- col. 11, lines 53-67 and col. 12, lines 1-5), the prior art does not fairly disclose a method comparing the signal that is obtained over a specified time to a criterion, as stated supra, that represents vibrational energy or a cosmic ray.

Regarding claim 35, the prior art does not disclose or fairly suggest a signal processor, comprising: storing a signal, indicative of a detection over a specified length of time by an electromagnetic detector, to determine a multiplicity of events within the signal and a filter to process the signal, in the buffer, to reject portions of the signal if the number of events is outside a specified threshold.

The examiner notes, that while it is known in the art a system using attenuation correction and as part of the correction, the system ensures that multiple different receptors receive a signal prior to producing an output (see for example Bertelsen et al – US 5,608,221 A – col. 1, line 49) and when an event is detected, detector pair (80) and (80') (see for example Bertelsen et al – US 5,608,221 A – col. 7, line 60), a coincidence timing circuit (1050) produce an output. The system also includes trigger signals to indicate when a signal is over the threshold voltage (see for example Bertelsen et al – US 5,608,221 A – col. 11, line 42), however the prior art does not fairly disclose a method storing a signal that is over a specified length of time and reviewing that signal for a number of events within the signal of the specified length of time and

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reject portions of the signal based on a number of events within the signal not resulting from a desired electromagnetic detection.

Regarding claim 41, the prior art does not disclose or fairly suggest a method, comprising: determining, in a medical gamma ray system, a dose and a number of gamma ray signals; using the dose and number of gamma ray signals to form a filter to filter out portions of received gamma rays that are outside a range that is based on the dose and number of gamma ray signals.

The examiner notes, that while it is known in the art a radionuclide imaging system, comprising: a filtering process wherein an operator of the system can use different value thresholds and reconstruct a final image using different filtering parameters and the ability to discriminate different radiation sources measured simultaneously or sequentially includes defining filter parameters as selected energy threshold values or ranges (see for example *Karellas et al – US 2002/0070365 A1 –* paragraph [0154]), the prior art does not fairly disclose a method forming a filter to filter out portions of the received gamma ray signals that are outside a range that is based on the dose and number of gamma ray signals.

The remaining 6-11,13 and 17 are allowable based on their dependency.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Boosalis whose telephone number is 571-272-

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2447. The examiner can normally be reached on Monday thru Friday from 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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